

WHAT IS CLAIMED IS:

1. A print controller and drawing controller  
having drawing means for executing drawing according to  
an input drawing command to a first bitmap image and  
5 drawing process specifying means for performing alpha  
blending specification (transparency degree  
specification) in executing drawing according to an  
input object as a drawing command to the first bitmap  
image, said print controller and drawing controller  
10 comprising:

alpha value replacing means for replacing the  
alpha blending specification with area information  
corresponding to an alpha value; and

15 drawing command converting means for converting  
the drawing command into another drawing command for  
performing a process corresponding to the area  
information.

2. The print controller and drawing controller  
20 according to claim 1, wherein said drawing process  
specifying means comprises means for specifying a  
single alpha value for all the input commands as the  
alpha blending specification in executing drawing  
according to the input object to a bitmap image.

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3. The print controller and drawing controller  
according to claim 1, wherein said drawing process

specifying means comprises means for specifying a plurality of alpha values for the input commands as the alpha blending specification in executing drawing according to the input object to a bitmap image.

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4. The print controller and drawing controller according to claim 1, wherein said alpha value replacing means comprises means for converting the alpha blending specification into a bitmap having a ratio of ON to OFF corresponding to the alpha value.

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5. The print controller and drawing controller according to claim 1, wherein said alpha value replacing means comprises means for converting a multivalue bitmap image that specifies a plurality of alpha values into a binary bitmap having a ratio of ON to OFF corresponding to the alpha value.

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6. The print controller and drawing controller according to claim 4 or 5, wherein said alpha value replacing means comprises means for changing the ratio of ON to OFF in converting the alpha blending specification into the ratio of ON to OFF corresponding to the alpha value depending upon an attribute of the input drawing command such as a character, graphics or image.

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7. The print controller and drawing controller according to claim 4 or 5, wherein said alpha value replacing means comprises means for adjusting an arrangement of ON and OFF in converting the alpha  
5 blending specification into the ratio of ON to OFF corresponding to the alpha value so as to result in a screen angle and/or the number of screen lines which does not cause moiré patterns with a screen in gray-scale conversion of the first bitmap image.

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8. The print controller and drawing controller according to claim 1, wherein said drawing command converting means comprises means for converting a combination of the input object of the input drawing  
15 command and the alpha blending specification into a combination of the input object, a bitmap image generated by said alpha value replacing means and drawing logic specification.

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9. The print controller and drawing controller according to claim 8, wherein, in the combination of the input object, the bitmap image generated by said alpha value replacing means and the drawing logic specification, said drawing command converting means  
25 comprises means for executing drawing according to the input object at a position corresponding to a first condition of the binary bit in the bitmap image

generated by said alpha value replacing means, and  
converting means transmitting through the first bitmap  
image at a position corresponding to a second  
condition.

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10. The print controller and drawing controller  
according to claim 1, wherein said alpha value  
replacing means comprises means for specifying a  
clipping region having an effective area corresponding  
to the alpha value, and said drawing command converting  
means comprises means for overwriting the first bitmap  
image with the input object of the input drawing  
command by using the clipping region generated by said  
clipping region specifying means.

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11. The print controller and drawing controller  
according to claim 1, wherein said alpha value  
replacing means comprises object converting means for  
converting the input object into a plurality of objects  
of a size having an effective area corresponding to the  
alpha value, and said drawing command converting means  
comprises means for overwriting the first bitmap image  
with the objects generated by said object converting  
means.

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12. A data processing method for a print  
controller and image controller, which include a

drawing step of executing drawing according to an input drawing command to a first bitmap image and a drawing process specifying step of performing alpha blending specification (transparency degree specification) in  
5 executing drawing according to an input object as a drawing command to the first bitmap image, the method comprising:

an alpha value replacing step of replacing the alpha blending specification with area information  
10 corresponding to an alpha value; and

a drawing command converting step of converting the drawing command into another drawing command for performing a process corresponding to the area information.

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13. A storage medium storing a program readable by a computer for executing drawing according to an input drawing command to a first bitmap image and performing alpha blending specification (transparency  
20 degree specification) in executing drawing according to an input object as a drawing command to the first bitmap image, the program comprising the steps of:

replacing the alpha blending specification with area information corresponding to an alpha value; and

25 converting the drawing command into another drawing command for executing a process corresponding to the area information.